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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/219,199	12/22/1998	JAN LENNART KRANSMO	27943-00252U	2139

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EXAMINER	
EWART, JAMES D	

ART UNIT	PAPER NUMBER
2683	

DATE MAILED: 03/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/219,199	KRANSMO ET AL.	
	Examiner	Art Unit	
	James D. Ewart	2683	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 April 2002*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☐ Claim(s) *1,4-9,11,13-21,23,24,27-32,34,36-44 and 46* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,4-9,11,13-21,23,24,27-32,34,36-44 and 46* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Response to Arguments

1. Applicant's arguments filed 11 April 2002, have been fully considered by the Examiner, but they are not deemed persuasive. Applicant argues that Camp, Jr. et al does not teach originating a request for approximate location information from the GPS-equipped terminal to the base transceiver station if a GPS signal strength at the GPS-equipped mobile terminal is "inadequate" to permit initialization of the reference GPS receiver associated with the GPS mobile terminal within a desired response time. Applicant further argues that Camp, Jr. et al does not teach a reference GPS receiver connected to the system. Camp, Jr. et al teaches location determination for a mobile station, which uses ephemeris and clock correction data from a GPS assistance server 18 connected to a base transceiver station. The GPS assistance server or the reference receiver periodically receives the GPS data from GPS satellites. When a location determination is desired at the user terminal, the user terminal checks to see if the stored ephemeris and clock correction data are accurate and if not, requests the information from the base transceiver station. The base transceiver station then provides this information along with the location of the base transceiver station, which the mobile station uses as its approximate location. In Column 6, Camp, Jr. et al discusses a few options for determining the location of the base transceiver station and one option is to use the longitude and latitude information received from the GPS reference receiver 18 (see Column 6, Lines 30-32). When the user is unable to receive a strong enough GPS satellite signal the user is notified that a location determination cannot be made at that time (see Column 6, Lines 53-56). When the user is unable to receive the location information, the user would, after some time period, try to obtain the mobile terminals location information again and request the location from the base station as shown in Figure 2

step 36. Being that the user initiated the request, the time period would probably be short. In any event, location requests are ongoing and the scenario as claimed would occur (Figure 2).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless – (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 8, 20, 31 and 43 are rejected under 35 U.S.C. 102(e) as being anticipated by Camp, Jr. et al. (U.S. Patent No. 6,075,987).

Referring to claims 8, 20, 31 and 43, Camp, Jr. et al. discloses in a wireless telecommunications system having a Base Transceiver Station and a mobile terminal equipped with a Global Positioning System (GPS) equipped receiver, the Base Transceiver Station having operational control of the GPS-equipped mobile terminal, a method for determining the approximate position of the GPS-equipped mobile terminal (Column 2, Lines 59-60), said method comprising the steps of: demodulating signals received from a multiplicity of GPS satellites at a reference GPS receiver (Column 2, Line 64 to Column 3, Line 1), said reference GPS receiver being connected to the wireless telecommunications system and having a determinate physical location relative to the base transceiver station (BTS) (Figure 1), recovering

respective navigational data signals from each of said demodulated GPS signals at the reference GPS receiver (Column 2, Line 64 to Column 3, Line 1); determining an estimated location of said reference GPS receiver using said demodulated signals from said GPS satellite (Column 6, Line 16-18 and 30-32); determining whether the GPS signal strength at the GPS-equipped mobile terminal is adequate to permit initialization of the GPS receiver associated with the GPS-equipped mobile terminal within a desired response time (Column 6, 47-50); if not, originating a request for approximate navigational information from the GPS-equipped mobile terminal to the Base Transceiver Station (Figure 2, 36); transmitting the estimated location of the reference GPS receiver to the GPS-equipped mobile terminal responsive to said request for approximate navigational information (Column 6, Lines 23-32); and determining, within said GPS-equipped mobile terminal, and from said transmitted navigational data signals, the approximate location of the GPS-equipped mobile terminal (Column 6 Lines 23-25).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1, 4-7, 13-19, 23, 24, 27-30, 36, 38-42 and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Camp, Jr. et al. and further in view of Denninger (U.S. Patent No. 5,952,961)

Referring to claims 1, 13, 14, 24 and 36. Camp, Jr et al. teaches in a wireless telecommunications system having a Base Transceiver Station and a mobile terminal equipped with a Global Positioning System (GPS) equipped receiver, the Base Transceiver Station having operational control of the GPS-equipped mobile terminal, a method for determining the approximate position of the GPS-equipped mobile terminal (Column 2, Lines 59-60), said method comprising the steps of demodulating signals received from a multiplicity of GPS satellites at a reference GPS receiver (Column 2, Line 64 to Column 3, Line 1), said reference GPS receiver being connected to the wireless telecommunications system and having a determinate physical location relative to the base transceiver station (BTS) (Figure 1): recovering respective navigational data signals from each of said demodulated GPS signals (Column 2, Line 64 to Column 3, Line 1); determining from said transmitted navigational data signals as estimated location of the reference GPS receiver (Column 6, Line 16-18 and 30-32); originating a request for approximate navigational information from the GPS-equipped mobile terminal to the Base Transceiver Station (Figure 2, 36); transmitting the estimated location of the reference GPS receiver to the GPS-equipped mobile terminal responsive to said request for approximate navigational information (Column 6, Lines 23-32); and determining, within said GPS-equipped mobile terminal, and from said transmitted navigational data signals, the approximate location of the GPS-equipped mobile terminal(Column 6 Lines 23-25), but does not teach wherein the GPS satellite signals comprise one of: Standard Positioning Service signals received on an L1 frequency, said L1 frequency being centered at about 1575.42 MHz;' or Precise positioning Service signals received on an L2 frequency, said L2 frequency being centered at about 1227.60 MHz. However, Denninger teaches the L1 and L2 frequencies as stated above (col. 3 lines 22-

27). Therefore, it would have been obvious to one of ordinary skill in the art to modify Camp, Jr. et al. by Denninger, by using the specific frequencies for the standard and precision positioning service in order to standardize the communications network.

Referring to claims 4, 15, 27 and 38, Camp, Jr. et al. discloses the method, wherein said approximate navigational information comprises the identities of a plurality of GPS satellites within ranging distance, the orbital parameters associated with said plurality of GPS satellites, clock correction information and differential correction information associated with said plurality of GPS satellites (col. 1 5 lines 16-37).

Referring to claims 5, 6, 17, 18, 28, 29, 40 and 41, Camp, Jr. et al. discloses the method, wherein said step of originating said request for approximate locational information from the GPS-equipped mobile terminal to the Base Transceiver Station is responsive to activation of the mobile terminal (col. 6, lines 6-15).

Referring to claims 7, 19, 30 and 42. Camp, Jr. et al. as modified by Derminger discloses the method, wherein said one designated number is associated with an emergency service (col. 6 lines 26-28).

Referring to claims 16 and 39, Camp, Jr. et al. discloses the method according to Claim 13, wherein said method further comprises, after said step of computing and before said step of

originating, the step of storing said estimated location of said reference GPS receiver in said wireless telecommunications system (col. 6 lines 6-15).

Referring to claims 23 and 46. Camp, Jr. et al. discloses the method wherein the estimated location of the reference GPS receiver is used as the approximate location of the GPS-equipped mobile terminal (col. 5 lines 39-49).

4. Claims 9, 21, 32, and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Camp, Jr. et al in further view of DuFett-Smith et al. (U.S. Patent No. 6,094,168).

Referring to claims 9, 21, 32 and 44, Camp, Jr. et al. discloses in a wireless telecommunications system having a Base Transceiver Station and a mobile terminal equipped with a Global Positioning System (GPS) equipped receiver, the Base Transceiver Station having operational control of the GPS-equipped mobile terminal, a method for determining the approximate position of the GPS-equipped mobile terminal (Column 2, Lines 59-60), said method comprising the steps of: demodulating signals received from a multiplicity of GPS satellites at a reference GPS receiver (Column 2, Line 64 to Column 3, Line 1), said reference GPS receiver being connected to the wireless telecommunications system and having a determinate physical location relative to the base transceiver station (BTS) (Figure 1); recovering respective navigational data signals from each of said demodulated GPS signals (Column 2, Line 64 to Column 3, Line 1); determining from said transmitted navigational data signals an estimated location of the reference GPS receiver (Column 6, Line 16-18 and 30-32); originating

a request for approximate navigational information from the GPS-equipped mobile terminal to the Base Transceiver Station (Figure 2, 36); transmitting the estimated location of the reference GPS receiver to the GPS-equipped mobile terminal responsive to said request for approximate navigational information (Column 6, Lines 23-32); and determining, within said GPS-equipped mobile terminal, and from said transmitted navigational data signals, the approximate location of the GPS-equipped mobile terminal (Column 6 Lines 23-25), but does not teach wherein said step of transmitting is performed via one of: a Cell Broadcast Short message service message of the wireless telecommunications system; or a Broadcast Control Channel of the wireless telecommunications system. However, Duffett-Smith teaches transmitting via a cell broadcast short message service or broadcast control channel (col. 8 lines 29-33 and col. 7 lines 41-46). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Camp, Jr. et al. by Duffett-Smith, by transmitting signals via cell broadcast short message service message or broadcast control channel in order to keep the network with updated information even during quiescent period.

5. Claims 11, 34 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Camp, Jr. et al. in further view of Hermansson et al. (U.S. Patent No. 5,987,319).

Referring to claims 11, 34 and 37, Camp, Jr. et al. discloses in a wireless telecommunications system having a Base Transceiver Station and a mobile terminal equipped with a Global Positioning System (GPS) equipped receiver, the Base Transceiver Station having operational control of the GPS-equipped mobile terminal, a method for determining the

approximate position of the GPS-equipped mobile terminal (Column 2, Lines 59-60), said method comprising the steps of: demodulating signals received from a multiplicity of GPS satellites at a reference GPS receiver (Column 2, Line 64 to Column 3, Line 1), said reference GPS receiver being connected to the wireless telecommunications system and having a determinate physical location relative to the base transceiver station (Figure 1); recovering respective navigational data signals from each of said demodulated GPS signals (Column 2, Line 64 to Column 3, Line 1); determining from said transmitted navigational data signals an estimated location of the reference GPS receiver (Column 6, Line 16-18 and 30-32); originating a request for approximate navigational information from the GPS-equipped mobile terminal to the Base Transceiver Station (Figure 2, 36); transmitting the estimated location of the reference GPS receiver to the GPS-equipped mobile terminal responsive to said request for approximate navigational information (Column 6, Lines 23-32); and determining, within said GPS-equipped mobile terminal, and from said transmitted navigational data signals, the approximate location of the GPS-equipped mobile terminal (Column 6 Lines 23-25), and updating the real time clock at the user terminal (Column 10, Lines 33-37), but does not teach periodically transmitting a timing advance parameter from the base transceiver station to the GPS-equipped mobile terminal to dynamically compensate for varying distances between the GPS-equipped mobile terminal and the base transceiver station; and refining said approximate location of the GPS-equipped mobile terminal using said timing advance parameter. However, Hermansson teaches transmitting a timing advance parameter (col. 5 lines 11-16). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Camp, Jr. et al by

Hermansson by adding means for transmitting a time advance parameter in order to update mobile terminals location information.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James D. Ewart whose telephone number is (571) 272-7864. The examiner can normally be reached on M-F 7am - 4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Trost can be reached on (571)272-7872. The fax phone numbers for the organization where this application or proceeding is assigned are (571) 273-8300 for regular communications and (571) 273-8300 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571)272-2600.

Ewart
March 15, 2006

WILLIAM TROST
SUPERVISORY PATENT EXAMINER
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